

NOT OK TO ENTER A.K., 4/30/08

Application No.: 10/581,210
Art Unit: 2818

Amendment under 37 CFR §1.116
Attorney Docket No.: 062485

AMENDMENTS TO THE CLAIMS

This listing of claims replaces all prior versions of claims in the application.

1. (Currently amended): A water electrolysis system, comprising:
an electrode including a metal oxynitride electrode catalyst comprising an oxynitride
containing at least one transition metal element selected from the group consisting of La, Ta, Nb,
Ti, and Zr, the metal oxynitride electrode catalyst, wherein atomic ratio of
(transition metal element):(oxygen):(nitrogen) is $(1\pm0.1):(1\pm0.1):(1\pm0.1)$; and
an acidic electrolyte contacting said metal oxynitride electrode catalyst;
wherein said metal oxynitride electrode catalyst having a potential of 0.4 V or higher
relative to the reversible hydrogen electrode potential in said acidic electrolyte.

2. (Currently amended): The ~~metal oxynitride electrode catalyst~~ water electrolysis system
according to Claim 1, wherein the metal oxynitride electrode catalyst is dispersed as fine
particles on a catalyst carrier which is an electronically conductive powder.

3 to 5. (Cancelled).

6. (New): An organic electrolysis system, comprising:

an electrode including a metal oxynitride electrode catalyst comprising an oxynitride

containing at least one transition metal element selected from the group consisting of La, Ta, Nb, Ti, and Zr, wherein atomic ratio of

(transition metal element):(oxygen):(nitrogen) is $(1\pm0.1):(1\pm0.1):(1\pm0.1)$; and

an acidic electrolyte contacting said metal oxynitride electrode catalyst;

wherein said metal oxynitride electrode catalyst having a potential of 0.4 V or higher relative to the reversible hydrogen electrode potential in said acidic electrolyte.

7. (New): The organic electrolysis system according to Claim 6, wherein the metal oxynitride electrode catalyst is dispersed as fine particles on a catalyst carrier which is an electronically conductive powder.

8. (New): A fuel cell, comprising:

an electrode including a metal oxynitride electrode catalyst comprising an oxynitride containing at least one transition metal element selected from the group consisting of La, Ta, Nb, Ti, and Zr, wherein atomic ratio of

(transition metal element):(oxygen):(nitrogen) is $(1\pm0.1):(1\pm0.1):(1\pm0.1)$; and

an acidic electrolyte contacting said metal oxynitride electrode catalyst;

wherein said metal oxynitride electrode catalyst having a potential of 0.4 V or higher relative to the reversible hydrogen electrode potential in said acidic electrolyte.

9. (New): The fuel cell according to Claim 8, wherein the metal oxynitride electrode

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catalyst is dispersed as fine particles on a catalyst carrier which is an electronically conductive powder.